

Elections, Special Interests and the Fiscal Costs of Financial Crisis

Philip Keefer

Development Research Group

The World Bank

Abstract: Many crises result from the willingness of politicians to cater to special interests at the expense of broad social interests. This paper presents a parsimonious model that predicts that the less costly it is for average citizens to expel politicians, the more veto players there are, the less important are exogenous shocks and the more difficult it is for politicians and special interests to forge credible agreements, the lower are the costs of crisis. Though these predictions differ from those in the literature, empirical evidence presented here shows that they explain the fiscal costs of financial crisis, even after controlling for the financial sector policies believed to contribute most to the efficient prevention and resolution of financial crisis.

JEL Classification: D72, G28

Elections, Special Interests and the Fiscal Costs of Financial Crises

The influence of special interests has been documented across a wide range of issues and countries, from agriculture to the financial sector, and from the United States to Zambia. Many issues surrounding special interest influence remain unresolved, however. The analysis here relates to two of these: what are the determinants of special interest influence over government responses to crisis, and why does special interest influence vary significantly from country to country? These questions have been the focus of significant attention in the literature. The contribution of the analysis here is to consider directly the role of elections, political checks and balances and political instability on special interest influence. A simple model identifies conditions under which all three can tame this influence. When investigated in the context of financial crisis, these predictions offer a robust explanation of why the fiscal costs of financial crisis range from more than 50 percent of GDP in some countries to less than five percent in others.

The analysis also suggests that the political influences persist even after one controls for the financial sector policies that are often recommended to countries to reduce the probability and fiscal costs of financial crisis. Political forces continue to have a large role even in countries that aggressively intervene in insolvent banks or refrain from providing unlimited guarantees to the creditors of insolvent banks.

Special interests and crisis in the literature

This paper touches on several areas that each have a substantial scholarly literature: special interest influence on policy, country responses to crisis, and country responses to financial crisis, specifically. With respect to the first, Baron (1991) and Grossman and Helpman (1996) argue that the larger the fraction of uninformed voters in a society, the

higher the electoral payoff to spending resources to inform voters, and the greater the political incentives to appeal to special interests at the expense of voters. Persson and Tabellini (2000, Chapters 8 and 9) offer numerous models of the interaction between political and electoral institutions and political incentives to shape fiscal policies in favor of narrow constituencies at the expense of broader. The analysis here takes a step back from these sophisticated analyses of decision making in democratic environments to ask whether the mere fact of elections raises the political costs to politicians of dealing with special interests; whether political checks and balances that force politicians to share the rents from special interest deals reduce incentives to make those deals; and whether political instability prevents special interests and politicians from making credible agreements with each other in the first place.

In the literature on special interests and in the analysis here, policy is the outcome of a conflict between special interests and the interests of citizens, generally. In the crisis literature, however, government policy is typically modeled as the outcome of agreements between large social groupings (e.g., capital and labor) or economic sectors. Frieden (1991) argues that differences in the internal cohesion of economic sectors, and in their reliance on specific assets, explain the different responses of Latin American countries to the debt crisis of the 1980s. Alesina and Drazen (1991) also model crisis as the outcome of competition among competing groups. When these are uncertain of the costs that crisis imposes on the others, they each prefer to delay reform in order to reduce the costs of adjustment that they specifically bear, even if overall costs of adjustment rise. Implicit in the Alesina and Drazen (1991) argument is the idea that multiple veto players – political checks and balances – inefficiently delay country responses to crisis. The analysis below predicts the opposite and

the evidence from banking crises suggests that, in fact, political checks and balances may exert multiple offsetting influences on country responses to crisis.

Remmer (1991) responds to the argument that democratic governments may be more open to the pressures exerted by broad social groups and more vulnerable to crisis. Her evidence suggests, on the contrary, no significant difference between authoritarian and democratic governments in Latin America in their response to the debt crisis. The work here, looking at financial rather than fiscal crises, suggests that the effects of crises are in fact systematically *less* under elected governments.

In the literature on financial crises, the conflict between special and broader social interests has a higher profile than in the literature on macroeconomic crisis generally. This literature does not, however, link differences in crisis outcomes across countries to differences in the influence of special interests, the question asked here. Calomiris and White (1994) conclude that an increase in the number of troubled banks within and across congressional districts triggered congressional support for deposit insurance proposals that had languished for decades. Romer and Weingast (1991) consider the committee structure of United States Congress and the distribution of narrow interests across congressional jurisdictions in identifying the determinants of legislative decisions to increase funding to the Federal Savings and Loan Insurance Corporation. Kroszner and Strahan (1996) argue that when US regulators lacked resources to intervene in insolvent financial institutions, they were less likely to do so. If they appeal to legislators for additional funding, they open themselves to the possibility that politicians will hold them responsible for crisis.

The politics of financial crises in developing countries have received no less attention. Montinola (2003) looks at the duration of banking crises in 67 developing countries and finds that IMF credits and crisis severity increase duration, but that the effects

of severity are largely attenuated in countries that exhibit constraints on the discretion of the executive branch. Hutchcroft (1998) documents in detail the capture of financial sector policy by special interests in the Philippines and the role this played in crisis. Haggard (2000) emphasizes that the strong influence of business interests over government decision making in East Asia seems to have been key to growth, but had more negative consequences in the context of financial sector liberalization and regulation. Campaign contributions in South Korea, clientelist politics in Indonesia and legislator participation in the activities of insolvent banks in Thailand all contributed to significant financial crises (p. 219). Haggard also advances the proposition, similar to the one here, that democracies in East Asia (South Korea and Thailand) recovered more quickly from their crises than did Indonesia, because citizens in the more democratic countries could more easily sanction malfeasant governments (p. 222).

The analysis here extends these analyses of the role of special interests in crisis in two ways. First, the analysis takes into account that in most countries, political competitors cannot make credible promises to citizens regarding financial sector policies. Given this, however, it is no longer obvious that elections are sufficient to moderate special interest influence. On the contrary, when political competitors are not credible, elections could increase, rather than reduce, corruption and rent-seeking. Second, the analysis generates statistical support across 39 crises for the prediction that elections can mitigate the costs of crisis, while excluding other possible explanations for the variations in the costs of crisis.

Elections, checks and balances and special interest influence on legislation

The simple model presented here highlights some of the conditions under which the ability of citizens to sanction politicians and the number of political checks and balances can reduce policy concessions to special interests. Government, composed of n veto players,

sets a policy $q \in [0, 1]$, where q is a normalized subset of the real line assumed closed, bounded and connected.¹ Without loss of generality, $q = 0$ is the policy most preferred by citizens; special interests most prefer the policy given by $q = 1$. The policy favors to special interests are then simply q , the extent to which policies authorized by veto players diverge from the outcome most preferred by citizens generally.

Special interests earn rents from policy q given by $\pi(q)$. The costs to citizen of the policy q are influenced by a shock δ distributed over $[-d, d]$ and with the density function $f(\delta)$. Veto players observe the shock prior to setting policy and can distinguish the influence of shocks and policies on final outcomes. Citizens cannot. Shocks exaggerate or mitigate the costs that special interest policies impose on citizens. For example, terms of trade shocks exacerbate the costs to citizens of financial sector regulations that encourage imprudent lending, a case relevant to the empirical discussion below. For simplicity, the costs to citizens are proportional to the rents that special interests and government decision makers enjoy from q and, taking the shock into consideration, are equal to $\gamma\pi(q - \delta)$. Adverse shocks, $\delta < 0$, increase the costs to citizens and positive shocks reduce them. Rent-seeking profits are greatest at the most preferred policy of special interests, $q = 1$, and $\pi_q > 0$.

The role of veto players in the model is circumscribed to focus only on the simple effect of their number. This reflects the fact that the empirical tests below are capable only of distinguishing hypotheses regarding the number of veto players, not the conditions under which they are elected or their strategic interaction once in office. Similar to Lizzeri and Persico (2001), veto players are chosen in n simultaneous, not necessarily fair elections in a single, national electoral district. Each veto player faces one challenger. However, since no

¹ These are common assumptions in such a model, where the stability of decision equilibria are not a focus of

policy can emerge without the agreement of all veto players, and voters have no other basis for distinguishing among veto players than whether a policy was approved or not, they hold veto players jointly responsible for all policy decisions of the government. Challengers are also identical. Therefore, citizens either reject all or retain all veto players in any election.

Strategic behavior between special interests and veto players is also circumscribed in the analysis and the share of rents that each receives is assumed exogenous. Veto players as a group receive $\alpha\pi$, $0 < \alpha \leq 1$ and special interests the remainder.² Veto players also share rents equally, each receiving $\alpha\pi/n$.³ This assumption removes two issues from the analysis. First, it assumes away differential proposal power among veto players and, second, away from difficulties that veto players might have should they be unable to make credible agreements with each other that rent shares agreed before policy implementation will be implemented after implementation.⁴ As in Besley and Coate (1999), the rents that politicians extract from special interests directly enhance their utility and are not, for example, campaign contributions that increase re-election chances.

Finally, veto players receive non-pecuniary rents from office-holding, given by R , so that each veto player's total rents from holding office are $\frac{\alpha}{n}\pi(q) + R$. Non-pecuniary rents

attention. See, for example, Segal, Cameron and Cover (1992).

² The fixed and non-negotiable share of rents is a benign simplification. The conclusion of the model is that as the number of veto players rises, concessions to special interests are less likely. This conclusion would be strengthened if the simplification were not made, since bargaining between veto players and special interests would likely become more difficult as the number of veto players grew, again making concessions to special interests less likely.

³ Identical rent shares across veto players focuses attention on the number of rather than the bargaining dynamics among veto players; an equal sharing principle is certainly explicable as the Nash Bargaining solution among identical actors with identical discount rates, as here.

⁴ This contrasts with the assumption in Persson and Tabellini (2000, Chapter 9), who argue that separation of powers reduces public spending when the power to propose taxes and spending are separated, and the "proposers" are unable to make credible agreements with each other. However, in systems with separation of powers, scholars have documented numerous legislative devices that permit players to make credible commitments.

play an important role in the analysis and are often assumed in the literature (see Persson and Tabellini 1999, for example). They are, in addition, quite plausible. Carlos Andres Pérez, for example, a former president of Venezuela, maintained, “I have said many times I am a man with only one ambition – history[.]” Gonzalo Sánchez de Lozada’s defeat in a presidential election in Bolivia was described as “. . . a moment of disillusion and loss [that] had a profound impact. The almost-president entered a period of deep depression[.]” (Grindle, p. 65 and p. 113). These non-pecuniary rents are, for convenience, assumed to be independent of the number of veto players. All that is necessary for the results below, however, is that they decline less than proportionally as the number of veto players increases. This is reasonable as long as, for example, the non-pecuniary benefits of being one of 435 members of the United States House of Representatives is more than one-fourth as large as those of being one of 100 United States senators.

Politicians are assumed to be unable to make credible pre-electoral promises to voters. This is true in many, particularly new democracies, for all issues and is true in most democracies with respect to financial sector policy. Prudential regulation in the banking sector, like many other policies that influence the risk of crisis, are often not policies on which political competitors campaign or on which they have established reputations. Citizens can therefore only affect policy if they can hold politicians accountable for their actions after the fact. They can do this if they can coordinate on a performance threshold $\bar{\pi}$ prior to the elections, as in Ferejohn (1986). Citizens confront a cost m of using elections to expel incumbents from office. Given the threshold, and provided the costs of expelling incumbents are not too high, citizens replace incumbents if they experience costs above $\gamma\bar{\pi}$; and if costs are at the threshold or below it, they retain them.

The order of play is therefore the following. Citizens set a performance threshold; a shock occurs; the incumbent veto players decide whether to meet the threshold or not; citizens observe their welfare; and elections are held. If incumbent veto players meet the performance threshold, all are re-elected. If they do not, citizens replace them all with their respective challengers. Unlike models in which political competitors *can* make credible pre-electoral promises, as in Grossman and Helpman, challengers cannot influence incumbent behavior, since they cannot make credible promises to voters. Rather than use special interest rents to inform voters of their superiority relative to challengers, incumbents use rents for private purposes, subject only to meeting the performance threshold set by voters.

To remain in office, incumbents must choose q such that $\pi(q - \delta) \leq \bar{\pi}$: they extract rents no greater than those permitted under the voter performance threshold. Since they prefer as many rents as possible, incumbents just meet the threshold, setting $\pi(q - \delta) = \bar{\pi}$, earning rents given by $\frac{\alpha}{n}\pi(q) + R$. If they choose not to meet the voter threshold, they are thrown out of office no matter how far above the threshold their rents are. They therefore choose the maximum level of rents, given by $q = 1$, earning $\frac{\alpha}{n}\pi(1)$ plus rents from a private career, which are for simplicity assumed to be zero. Incumbents therefore abide by the voter performance threshold when

$$(1) \quad \frac{\alpha}{n}\pi(q) + R \geq \frac{\alpha}{n}\pi(1), \text{ where } \pi(q - \delta) = \bar{\pi}.$$

In fixing $\bar{\pi}$, citizens trade off the greater welfare they receive if incumbents abide by a high performance threshold (low $\bar{\pi}$) against the lower welfare they experience when a low $\bar{\pi}$ leads incumbents to forego re-election more often. In particular, they take into account

that the larger are negative shocks, the more must incumbents reduce q to ensure that the condition $\pi(q - \delta) = \bar{\pi}$ is met, implying that they must be willing to accept a lower level of rents $\pi(q)$ if they wish to be re-elected. As in a similar model in Persson and Tabellini (2000, Chapter 4), for sufficiently negative shocks, no q satisfies condition (1). For a sufficiently large and negative shock, the amount by which q would need to drop to offset the shock and meet the performance threshold implies rents from remaining in office below the rents that could be earned by setting $q = 1$ and foregoing re-election.

To find the performance threshold $\bar{\pi}$, define the threshold $\bar{\delta}$ below which incumbents forego re-election rather than acquiesce to the performance threshold $\bar{\pi}$ as:

$$(2) \quad \frac{\alpha}{n} \pi(\bar{q}) + R = \frac{\alpha}{n} \pi(1), \text{ where } \pi(\bar{q} - \bar{\delta}) = \bar{\pi} \text{ and } \gamma[\pi(1) - \bar{\pi}] \geq m, \text{ and}$$

$$\frac{\alpha}{n} \pi(q) + R < \frac{\alpha}{n} \pi(1) \text{ for } q \text{ satisfying } \pi(q - \delta) = \bar{\pi}, \delta < \bar{\delta}.$$

Condition (2) says that for a given $\bar{\pi}$ and sufficiently negative shocks, $\delta < \bar{\delta}$, any policy that satisfies the performance threshold leaves them worse off than if they forego re-election.

They forego re-election, therefore, and citizens bear costs $\gamma\pi(1 - \delta)$. For $\delta \geq \bar{\delta}$,

incumbents can pursue more generous rent-seeking policies, $q = \bar{q} + \delta - \bar{\delta}$ and greater rents $\pi(q) > \pi(\bar{q})$, while meeting the re-election condition that $\pi(\bar{q} - \bar{\delta}) = \bar{\pi}$.

Condition (2) indicates that the threshold rent level $\bar{\pi}$ is entirely determined by the choice of threshold shock $\bar{\delta}$. Recalling that the shock is random with density function $f(\delta)$ distributed over $[-d, d]$, the expected costs to citizens of adopting a particular threshold shock $\bar{\delta}$, given $\bar{\pi}$, are

$$(3) \quad \int_{-d}^{\bar{\delta}} \gamma\pi(1 - \delta)f(\delta)d\delta + \int_{\bar{\delta}}^d \gamma\pi(\bar{q} - \bar{\delta})f(\delta)d\delta.$$

Citizens will not bother to replace incumbents if the costs of doing so, m , are greater than the rents they can save by threatening to replace them. That is, they replace incumbents only if $\gamma[\pi(1) - \pi] \geq m$. Citizens therefore minimize their expected costs, expression (3), subject to $\gamma[\pi(1) - \pi] \geq m$. Assuming that the solution is interior and this constraint is not binding, minimization yields the first order condition

$$\gamma\pi(1 - \delta)f(\delta) - \gamma\pi(\bar{q} - \delta)f(\delta) - \int_{\delta}^{\bar{q}} \gamma\pi'(\bar{q} - \delta)f(\delta)d\delta = 0, \text{ or simplifying,}$$

$$\gamma f(\delta)[\pi(1 - \delta) - \pi(\bar{q} - \delta)] - \gamma\pi'(\bar{q} - \delta)(1 - F(\delta)) = 0, \text{ giving}$$

$$(4) \quad \frac{\pi'(\bar{q} - \delta)}{\pi(1 - \delta) - \pi(\bar{q} - \delta)} = \frac{f(\delta)}{1 - F(\delta)}.$$

The right hand side of (4) is the hazard rate, the probability that a shock more negative than δ will occur conditional on it not having already occurred. The numerator of the left hand side reflects the effect of a change in δ on the costs born by voters when incumbents seek re-election; the denominator reflects the change in costs imposed on citizens when an increased δ leads incumbents to prefer not to seek re-election. The left hand side of (4) falls in δ for $\pi'' > 0$ -- when the costs to voters rise at a rate increasing in q . As long as the hazard rate is increasing in δ (as when, for example, the distribution is uniform), a unique δ solves condition (4). Substituting the solution for δ into $\pi(\bar{q} - \delta) = \pi$ from expression (2) yields the rent threshold.

From the model, one can predict that each of the following reduce government incentives to tailor policies towards special interest demands.

A decline in expulsion costs m : The constraint $\gamma[\pi(1) - \pi] \geq m$ is binding if the solution to the foregoing minimization problem implies $\gamma[\pi(1) - \pi] \leq m$. In this case, the

performance threshold is chosen so as to set the constraint to equality. From this, one can directly see that the higher are the costs to citizens of changing incumbents, the lower must the performance threshold be and the closer is q to the one, the most preferred policy of special interests.⁵

An increase in the number of veto players: The larger is the number of veto players, the lower is rent-seeking. Multiplying (1) by $\frac{n}{\alpha}$ and differentiating with respect to n yields

$$\frac{\partial \pi(\bar{q})}{\partial n} = \frac{\partial \pi(\bar{q})}{\partial q} \frac{\partial \bar{q}}{\partial n} = -\frac{1}{\alpha} R < 0. \text{ As the number of veto players rises, non-pecuniary rents}$$

per veto player remain unchanged.⁶ Pecuniary rents per veto player fall, however, since they must be shared among more actors. Because pecuniary rents become less valuable relative to non-pecuniary rents, voters can tighten the performance threshold and demand a lower q as a condition of retaining the veto players in office. The same argument can be made in a different way with respect to the benefits to veto players of being expelled from office: the gains per veto player from the maximum rent strategy, $q = 1$, fall as the number of veto players rises, but the non-pecuniary rents from office do not. Voters can take advantage of the relative decline in the attractiveness of leaving office by requiring lower q as a condition of remaining in office. This prediction contrasts with others in the literature. The arguments developed by Alesina and Drazen (1991) or Tsebelis (1999), for example, imply that checks and balances might *increase* delay in response to crisis, and therefore the magnitude or costs of crisis.

⁵ Re-election is weakly dominant, given the inequality, but would of course be strongly dominant if \bar{q} were epsilon larger.

⁶ Non-pecuniary rents are assumed here to be insensitive to the number of veto players. To reiterate the point made earlier, though, the conclusions here remain the same as long as the non-pecuniary rents from holding office fall more slowly in the number of veto players than do pecuniary rents.

A decline in the magnitude of exogenous shocks. From Condition (2) we know that for sufficiently large and adverse shocks, $\delta < \bar{\delta}$, governments will forego the chance for re-election: to remain in office they must sacrifice too many rents relative to the rents they can retain by abandoning restraint and setting $q = 1$.

A decline in the credibility of special interest – veto player agreements. The model assumes that credible agreements between citizens and veto players regarding q are not credible, but special interest – veto player agreements are credible. If, however, special interests cannot credibly promise that they will share with veto players the profits that they earn because of policy q , politicians have no reason to make such agreements; rent-seeking π therefore falls. This is similar to Frederiksson and Svensson (2003), who argue that political instability reduces the returns to lobbyists of making buying policy favors from incumbents. It contrasts with Acemoglu and Robinson (2001), who argue that the absence of credibility of promises between special interests and veto players can *worsen* the distortions triggered by subsidies. In their argument, the inability of governments to commit to future subsidies gives rise to alternative subsidy modalities that are less efficient, but that mitigate the commitment problem (e.g., by encouraging entry into the subsidized industry). Theirs is an elegant explanation of, for example, the form that agricultural subsidies take in developed countries, but may not extend to the policy environment discussed here.

Special interests and government response to financial crisis

Crisis can be thought of as a special case of the foregoing analysis, one in which special interests receive an especially large share of the benefits of government decision making at the expense of citizens more generally. Government decision making in the financial sector provides a good example of where the two – special interest policy favors and crisis – converge. In the last fifteen years, more than 40 countries have experienced

banking crises. In several cases, crisis has triggered losses exceeding 50 percent of national income. Considerable evidence suggests that regulatory failures benefiting special interests exacerbated the magnitude of crisis and that crisis was resolved with substantial fiscal transfers that primarily benefited narrow groups of society at the expense of broader interests. The empirical work below asks whether elections and political checks and balances explain the fiscal costs of banking crises, comprised largely of these transfers, and whether the relationship between political instability before and after crisis and the fiscal costs of transfers is consistent with the predictions made above.

Government policy and financial crisis

Governments influence two important issues in the financial sector: the ease with which banks can engage in imprudent lending practices, and the extent to which such banks, when they encounter problems, are bailed out with public funds. In practice, imprudent or fraudulent banking practices underlie financial crisis. Bankers might invest deposits in high risk loans, or fraudulently use bank deposits for private purposes or consumption by bank insiders. When high risk loans turn delinquent and stop returning interest and principal payments to the lender, banks encounter problems returning interest and principal to depositors. Interest on the deposits used to finance imprudent lending ultimately must therefore be financed by new deposits (as in Ponzi schemes). A bank crisis necessarily occurs when there is no rate of interest at which imprudent bankers can attract sufficient new deposits to finance the interest charges on new and old deposits (a bank run occurs when depositors think this might occur and rush to empty their accounts).⁷

⁷ A crisis can also be precipitated by an economic crisis in which depositors need to draw down their accounts to meet their own liquidity requirements or when the prudent loans of the banks unexpectedly become non-performing. In most cases, crisis is the product of both imprudent lending and exogenous shock.

Table 1 presents a snapshot of an insolvent bank or banking system that is ripe for crisis. The bank has taken \$1000 of deposits and given 90 percent of them to insiders; they produce no revenue for the bank. The other ten percent of deposits have been committed to low-risk, income-generating loans. The bank will owe \$100 in interest in the next period, but will collect only \$15 from the good loans it has made. It must attract \$85 in deposits to make up the difference.

Table 1: Illiquidity and insolvency in banking

Deposits	Good loans (interest on loans = 15%)	Bad (insider) loans (non- income producing)	Liquidity requirement (interest on deposits = 10%)	Liquidity that must be financed from new deposits	Excess of bank liabilities over assets
\$1000	\$100	\$900	$.10 * \$1000 =$ \$100	$\$100 - \$15 =$ \$85	\$900

It is easy to see from Table 1 how government regulatory policy can take time to result in crisis. As long as depositors withdraw only interest, banks need only ensure that their loans return just enough capital to pay that interest, the amount given in the fourth column in Table 1 (\$100). In the meantime, however, the shortfall between the value of bank assets and its liabilities (the last column in Table 1, \$900) can rise to large fractions of a country's GDP.

The fit between financial sector policy making and the assumptions of the model

The framework introduced above is especially appropriate for the analysis of financial crises if three conditions hold. First, special interests are the primary beneficiaries of fiscal transfers undertaken in response to banking crises, while general and diffuse interests are the primary losers; second, special interests who might oppose the rent-seeking policy q have only a small stake in it; and, third, that rent-seeking, q , equals zero unless all veto players agree to change it (the *status quo* policy is $q = 0$). This section argues that each

of these conditions is likely to hold. Empirically, it is important that they hold only because, to the extent that they do not, the empirical tests below are unlikely to be significant. The failure of these conditions does not bias results in favor of the prediction of the model.

Are fiscal transfers to insolvent banks driven by special interests?

A key argument in this paper is that these transfers are determined by the resolution of the conflict between narrow special and broad social interests, in contrast to other analyses of crises described earlier. It is self-evident, though, that fiscal transfers to insolvent banks require a decision by government to impose on taxpayers the costs of bank insolvency that would otherwise be borne by the holders of bank liabilities (depositors and other bank creditors) or could be financed by aggressive pursuit of the assets of imprudent bankers and bad debtors. We would therefore expect fiscal transfers in response to banking crises to be highest where special interests have the greatest influence over policy making, holding constant other determinants of the magnitude of crisis, particularly the magnitude of exogenous shocks.

In theory, there could be an offsetting social *benefit* that could motivate government transfers to insolvent banks even if governments were immune to special interest pressures. This would be the case if large shocks caused prudent banks to become insolvent. To the extent that banks have relationships with high quality borrowers that those borrowers cannot re-establish quickly with new financial institutions, bank closure unnecessarily stunts the recovery of markets from economic collapse. A diversion of fiscal resources to recapitalization therefore hastens recovery. This theoretical possibility does not seem to have a strong empirical basis.

On the one hand, there is much more support, at least anecdotally, for the argument that large fiscal transfers are made to allow banks to continue lending to or to avoid

foreclosing on well-connected delinquent borrowers, who should not be receiving loans in the first place.⁸ On the other hand, if governments were motivated only by broad national interests in formulating their response to crisis, then we would expect a proportional relationship between the magnitude of loans or deposits in insolvent banks, on the one hand, and fiscal transfers on the other. For the few countries for which this data exists, however, no such relationship can be found.

In Chile, the assets of insolvent institutions (one measure of the magnitude of crisis) amounted to approximately 22 percent of GDP, but bailout costs were twice as high, 41 percent. In Colombia, assets amounted to eight percent of GDP, but the fiscal costs of resolving the crisis were lower, at five percent. Deposits in insolvent institutions (a second measure of crisis magnitude) were approximately 5 percent of GDP in Uruguay, where bailout costs were seven percent of GDP; however, deposits in insolvent institutions amounted to nine percent of GDP in Malaysia in 1985, where the bailout was only 4.7 percent of GDP.⁹

*Are significant special interests **opposed** to fiscal transfers to insolvent banks?*

In many policy areas, special interests have competing interests, so the relative weight of special interests in the policy making process determines the outcome. The analysis here assumes away conflict among special interests, focusing instead on the case where special interests are not competing and where governments strike a balance between competing broad social interests and narrow special interests. The financial sector is not a

⁸ For example, government officials in East Asia encouraged or allowed the massive sale of foreign reserves in an attempt to sustain currency values in the face of devaluation pressures. These officials or their supporters had financial interests in local banks that benefited significantly from this action. Those banks had taken on large foreign-currency denominated liabilities that could not be repaid out of the proceeds of domestic lending if a significant devaluation occurred. In the face of pressures on their currencies, and in a fruitless attempt to avoid bank insolvencies, government officials sold off most foreign exchange reserves.

⁹ The asset and deposit information are from Caprio and Klingebiel, 1997; the size of the financial sector

single special interest, however, but many: large and small banks, prudent and imprudent banks, and banks and non-bank financial institutions are present and have divergent interests. Prudent financial institutions may resist bailouts of imprudent and insolvent institutions, for example. So also would the competitors of high-risk debtors whose defaults play a role in precipitating crisis. The possibility of competing special interests is unlikely to affect the conclusions reached here, however.

First, even when financial interests have conflicting goals they often prefer the same policy. Romer and Weingast (1991) document how *solvent* savings and loans opposed increasing resources to the regulatory agencies because they feared those resources would come at their expense (through taxes on all savings and loans); *insolvent* savings and loans opposed increased funding because they knew this would trigger the end of forbearance.

Second, competing interests are simply not present in many of the countries below. Most countries in the sample do not exhibit the degree of dispersion of bank size that is evident in the United States; most countries do not have highly developed non-bank financial institutions, and even when they do, these do not register strong opposition to financial sector bailouts financed by taxpayers (indeed, they are often also the recipients of these bailouts). Finally, it is important to recall that even if competing special interests were a significant phenomenon, their presence would serve only to bias results below away from findings consistent with the framework presented earlier (e.g., away from the finding that the costs of removing veto players have a substantial effect on policy outcomes).

Is the decision making process countries use to make fiscal transfers to insolvent banks the same as the one assumed here?

The argument here assumes that in the absence of any government decision, the *status quo* policy is one of no rent-seeking, q equal to zero. The conclusions of the argument

are potentially different if significant rent-seeking persists *unless* all veto players agree to reduce it. However, with regard both to regulatory policies leading up to crisis and government responses to crisis when it emerges, the assumption used here seems more reasonable.

First, if political actors have meaningful veto power, they must be able to block government spending plans. In this case, it must be the case that unless all veto players agree to bail out insolvent financial institutions, no bailout takes place.¹⁰ With regard to regulatory decisions leading up to crisis, the ability of banks to extract rents from imprudent loans to high-risk customers requires, first, that governments loosely regulate the prudence of banking operations *and*, second, that governments stand ready to indemnify bank creditors against insolvency.¹¹ The first condition implies that in the absence of a government decision, the *status quo* q is closer to one, contrary to the model. However, the second necessary condition implies that lack of agreement leads to no indemnification, or a *status quo* q closer to zero, just as in the model.

Testing implications of the model for the fiscal costs of financial crisis

The model presented earlier suggests that fiscal transfers to special interests (insolvent banks, their borrowers, and their creditors) should fall with the costs of removing veto players from office, with the number of veto players, and with the credibility of agreements between special interests and politicians; and should rise the greater is the magnitude of shocks. The first prediction is examined below under the assumption that the presence of competitive elections reduces the costs to citizens of removing incumbents from

¹⁰ Where bank regulators have funds from, for example, deposit insurance premia paid by banks, they can make transfers to insolvent banks without political approval. However, these funds rarely cover substantial bank failures.

¹¹ See, among a large literature, Akerlof and Romer (1994) and Demirgüç-Kunt and Detragiache (2000).

office. The second is also directly tested, using data on the number of veto players that countries exhibit.

The third and fourth predictions are examined indirectly. If there is political instability – frequent changes of veto players – in the period leading up to crisis, it should be the case that special interests and veto players have greater difficulty establishing credible agreements with each other. For example, they do not have the advantage of repeated interaction that might otherwise cement agreements between them. Fiscal transfers should therefore be lower.¹²

Shocks should drive up fiscal transfers because, in the face of large adverse shocks, incumbents must accept low rents as a condition of staying in office. For sufficiently large shocks they could expect that they would be forced out of office even if they set q to zero. Under these conditions, they prefer to set the fiscal costs of transfers (rents) at a high level and be expelled from office. Two approaches are taken to examine this prediction. The direct approach asks whether very approximate indicators of shocks are significant determinants of fiscal costs of crisis. They are generally not. The second is indirect. To the extent that the fiscal costs of crisis are related to unmeasured shocks, there should be a positive association between those costs and subsequent political instability. The evidence below suggests that this association exists and is significant.¹³

¹² Fredriksson and Svensson (2003), examining a different problem and using a distinct analytical framework nevertheless also find that political instability prior to policy adoption increases the stringency of environmental policy, by reducing the returns to lobbying for lax legislation.

¹³ Of course, it is possible that overall economic performance during a crisis, and not specific government actions related to the financial sector, drive such an association. The specifications below, however, control for overall economic circumstances that might drive both financial crisis and government instability.

Data and Specification

These predictions are evaluated by estimating the following general expression with ordinary least squares: $costs_i = X_i\beta + \epsilon_i$. The subscript i indexes crisis episodes. The correlates X include both political and non-political determinants of fiscal transfers. The variables capturing government policy towards the banking sector come from Honohan and Klingebiel (2003), who collected data on government responses to financial crisis for 40 crises in 35 countries, including the dependent variable used here, fiscal transfers made in response to crisis.¹⁴ Their calculations of fiscal transfers incorporate both the fiscal and quasi-fiscal outlays for financial system restructuring, including the recapitalization cost for banks and the costs of indemnifying depositors. Transfers range from 0.5 to 55.1 percent of GDP.

Political variables are taken from the 2000 release of the *Database of Political Institutions*, or *DPI* (Beck, et al., 2000). The *DPI* has two variables to capture the competitiveness of elections (the costs m to average citizens of removing veto players from office), the *Executive and Legislative Indices of Electoral Competitiveness* (*EIEC* and *LIEC*). These are scored from one, no elections, to seven, elections in which there are multiple candidates running for office and no candidate obtains more than 75 percent of the vote. In the empirical work below, *EIEC* is dichotomized, set equal to one if *EIEC* equals six or seven (where six indicates that multiple candidates could and did run for office, but the winner received more than 75 percent of the vote), and zero otherwise. Averages of this dummy variable are used in the construction of lags and leads.

The number of veto players is captured by the variable *checks* from that data set. In presidential systems, *checks* is the sum of one (if *EIEC* is greater than four, to distinguish

¹⁴ To calculate fiscal transfers, they relied on Caprio and Klingebiel (1997) and Lindgren, Garcia and Saal

elected and un-elected presidents), one (for the president), one for each legislative chamber, and one if the first government party is closer in political orientation (left, right or center) to the first opposition party than to the party of the president. If the legislature is closed list (voters must vote for parties and cannot register candidate preferences) and the president's party has a majority in parliament, the legislature is not counted as a check. Similarly, if the legislature is not competitively elected, the presumption is that the president entirely controls policy and again the legislature is not counted as a check. The process is the same in parliamentary systems, except that *checks* counts one for the prime minister and adds the number of parties in the governing coalition; the number is reduced by one if there is a closed list and the prime minister's party is in the coalition.

DPI has a measure of instability that takes into account the fact that governments may have multiple veto players, *stabns*, labeled here *political instability*. It is calculated as the fraction of veto players in period x who are no longer veto players in period $x+1$ (e.g., because a party dropped out of a coalition government or a government changed hands). *Political Instability* takes a value of either zero or one in countries where there are no elections (the single veto player is an autocrat who is either removed from office or not). In democratic governments, it can be any fraction from zero to one. This variable is used to create variables capturing the fraction of political veto players who are replaced prior to and following the first year that financial sector crisis becomes publicly known.

To account for shocks in the period leading up to crisis, \mathbf{X} variously includes movements in the terms of trade and the current account balance, for which available data permit nearly complete country coverage, and the real interest rate and measures of government spending and indebtedness, for which data coverage is much less complete.

(1996), resolving conflicts by consulting with country experts.

Income per capita may mitigate the size of bank crises to the extent that richer countries tend to have more diversified economies, easing bank efforts to maintain more prudent lending portfolios. In addition, richer countries may be able to support a more intensive regulatory effort, and may be better able to establish particular political institutions or to inform the public about government decisions. Finally, richer countries may be better able to monitor the practices of insolvent banks, giving them the option to allow the banks to continue to operate and turn their bad loan portfolio around.

Some specifications control for economic growth in the period leading up to crisis, though its exogeneity is unclear and its predicted sign ambiguous. On the one hand, crisis is likely to be more severe, and corresponding fiscal transfers larger, when there is an exogenous slowdown in economic activity that drives some borrowers into insolvency. By this logic, growth prior to crisis should be *negatively* related to its fiscal costs. At the same time, the greater is imprudent lending in the years leading up to a crisis, the faster should be economic growth and the larger should be the magnitude of the crisis when it is eventually manifested. In this case, financial sector policy drives growth, and the relationship between growth and crisis magnitudes should be *positive*.

Table 1 summarizes all of these variables for the year of crisis. The dating follows the convention adopted by Honohan and Klingebiel (2003) and others, as the first year that insolvency problems of crisis dimension first come to public attention. Though Table 1 focuses on core variable in the year of crisis, the government decisions influencing the fiscal costs of crisis are made both before and after the year that the crisis becomes publicly known. The exact timing of those decisions is unknown, however. A variety of lags and leads are therefore explored below.

Initially, a three year window is used for all of the political variables and some of the economic correlates. Backward-looking variables, such as *political instability_lagged3* and *growth_lagged3*, are averaged over the three years before the year that crisis becomes publicly known ($t-1, t-2, t-3$); forward-looking variables, such as *political instability_lead3* and *growth_lead3*, in the three years after ($t+1, t+2, t+3$). Variables for which both past and future values are relevant and are predicted to operate in the same direction are averaged over the three years before and three years after the year that crisis becomes publicly known, such as *checks_33*, *electoral competitiveness_33* and *income per capita_33*. The variables capturing economic shocks or vulnerability to shocks, such as terms of trade movements and the current account balance, are all lagged one year, since we expect these to precipitate crisis. Change in these variables in the year prior to crisis matters systematically more than changes over any other time span, though only the current account balance, among these variables, is ever significant.

Table 1: Summary statistics (for year of crisis)

Variable	No. obs.	Mean	Median	Std. Dev.	Min.	Max.
<i>Fiscal costs of transfers as percent of GDP</i>	40	12.8	9.81	13.4	0.5	55.1
<i>Checks</i>	39	2.90	3	1.59	1	6
<i>Political Instability</i>	38	.20	0	.35	0	1
<i>EIEC dummy</i>	39	.64	1	.49	0	1
<i>Current account balance (external balance plus net income, transfers/GDP, in %)</i>	39	-2.62	-2.0	4.73	-14.50	9.11
<i>Terms of Trade Index (export prices/import prices, 1995 = 100)</i>	37	98.68	100	10.05	69.83	118.19
<i>% change in Terms of Trade index between year of crisis and previous year</i>	37	.00	-.20	8.81	-32.8	24.2
<i>Real GDP/capita (PPP-adjusted, constant international dollars)</i>	39	8,987	6,185	7,025	1,345	25,100
<i>Growth in GDP/capita</i>	39	-0.50	1.02	4.50	-11.73	5.55

Because of the small sample size, lagged and lead averages are constructed with the data available. That is, observations are not deleted if they are missing some of the years required to construct the average values used in the estimation. However, results are robust to using only observations for which complete data is available.

Elections, checks and balances, political instability, and the fiscal costs of financial crisis

The regressions in Table 2 establish the effects of the political variables on crisis. In the first two specifications, political effects are estimated without additional controls. The final four columns take a variety of macroeconomic variables into account: current account reserves in column three and four, reflecting the role of international capital flows in

financial crisis; terms of trade shocks in column four, to capture one common exogenous economic shock that can disrupt financial markets; economic growth and income in column four; measures of the debt burden in column five, again related to factors frequently associated with financial crisis, debt service and total debt burden; and, in column six, the government spending as a fraction of GDP, to control for the possible connection between a government's ability to raise revenues and its pre-crisis financial obligations, and its ability to finance large transfers in the event of financial crisis.

All specifications show a strong and negative influence of competitive elections on fiscal transfers to governments. *Electoral competitiveness_33* is significant, large and negative, except in column five, where it is borderline significant despite a one-third drop in the sample size. Even there, the magnitude of the coefficient is essentially the same as the other estimates. The electoral results are robust to controlling for income per capita, although the correlation between the two variables is greater than 40 percent. A shift from non-competitive to competitive elections is associated with a reduction in fiscal transfers to insolvent institutions of more than 18 percentage points of GDP. A one standard deviation increase in the value of *electoral competitiveness_33* is associated with fiscal costs that are more than eight percentage points higher.

These findings are strongly supportive of the prediction that the lower the costs to citizens of removing incumbents, the greater are incumbents' incentives to avoid policies that benefit special interests at the expense of citizens generally. The point is reinforced if one adds, to the specifications in Table 2, a variable that records the number of years from the crisis year to the next election. The estimated coefficient is large and positive: the more distant are elections, the more tenuous is electoral accountability, and the larger are the fiscal costs of financial crisis (other political variables remain significant when years to next

election are taken into account; political instability prior to crisis becomes much more significant).

By itself, a larger number of veto players or *checks* is associated with lower fiscal costs of financial crisis, as the first regression of Table 2 shows and consistent with the argument made earlier. In the remaining specifications, *checks* is uniformly insignificant. As the earlier discussion emphasizes, the number of veto players has offsetting effects: divided governments slow government response to crisis, as in Alesina and Drazen (1991), while multiple veto players have weaker incentives to seek rents, as argued here.¹⁵

The earlier analysis predicts that large shocks should precipitate both high rents and political instability. A direct test of this prediction would entail estimating the effects of shocks on transfers and political instability separately. This requires accurate measures of the relevant exogenous shocks, however, that are difficult to identify. Not surprisingly, none of the shock variables in Table 2 are significant.

¹⁵ These results are consistent with Montinola (2003), who examines the *duration* of banking crises (the time between the revelation of the crisis and its resolution). She concludes that, although crises last longer when they are more severe, the influence of crisis severity is significantly mitigated in countries that impose substantial constraints on the executive. By themselves, though, these constraints have a largely insignificant effect on crisis duration.

Table 2: Elections, political instability and the fiscal costs of banking crises
(t-statistics in parentheses)

Dependent variable: <i>Fiscal costs of crises/GDP</i>	(1)	(2)	(3)	(4)	(5)	(6)
<i>Constant</i>	20.81 (4.00)	18.03 (3.52)	11.81 (1.85)	12.84 (2.02)	-2.9 (-.27)	27.04 (3.58)
<i>checks_33</i>	-2.59 (-1.90)	1.47 (.66)	2.50 (1.06)	22.42 (1.02)	4.16 (1.48)	1.274 (.56)
<i>Electoral competitiveness_33</i>		-19.62 (-2.25)	-22.53 (-2.60)	-21.18 (-2.32)	-18.81 (-1.59)	-18.86 (-2.32)
<i>political instability_lead3</i>		28.88 (2.40)	32.86 (2.59)	33.33 (2.29)	27.70 (2.03)	31.05 (2.42)
<i>political instability_lagged3</i>		-12.83 (-1.84)	-11.55 (-1.28)	-11.53 (-1.27)	-15.03 (-1.73)	-9.12 (-.70)
<i>Current account balance (t-1)</i>			-.82 (-1.42)	-.50 (-1.00)		
<i>Terms of trade (percent change between t-1 and crisis year t)</i>				-.23 (-1.03)		
<i>income_33</i>				-.00016 (-.77)		
<i>growth_lagged3</i>				.76 (1.18)		
<i>Debt service/exports (t-1)</i>					.46 (1.78)	
<i>Total reserves/total debt (t-1)</i>					.14 (1.71)	
<i>Total government expenditures/GDP_lagged3</i>						-34.54 (-2.02)
R ²	.10	.40	.44	.49	.54	.48
N	41	38	38	38	27	30

Note: Robust (White-adjusted) standard errors. Observations are “clustered”, such that independence is assumed across countries but not between observations from the same country (Argentina, Indonesia, Malaysia, Turkey, and Thailand).

The terms of trade and current account balance have little association with fiscal transfers, with or without the controls in the various specifications in the table. *Debt service/exports* and *total reserves/debt* are significant, but multicollinear (they are correlated at -.30); when entered alone, neither is significant. They also offset each other: when *total reserves/debt* drop, and a foreign exchange/debt crisis looms, fiscal transfers fall; they rise when debt service payments increase as a fraction of exports, however.

If the predictions of the analysis are correct, however, unobserved shocks should give rise to a positive association between post-crisis political instability (*political instability_lead3*) and fiscal transfers. In fact, one observes a strong and positive association between fiscal transfers and post-crisis instability across all specifications in Table 2.¹⁶ A one standard deviation increase in post-crisis political instability – an increase in the replacement rate of veto players by 19 percent – is associated with an increase in the fiscal costs of crisis of more than seven percent of GDP.¹⁷

It is by no means obvious that high fiscal transfers in the event of financial crisis should provoke post-crisis instability. Why should governments choose policies that lead voters to expel them from office if those policies are not necessary? On the other hand, if the policies are necessary, why should voters subsequently expel them from office? The earlier analysis predicts that the association between high transfers and instability emerges when exogenous shocks occur that make re-election difficult no matter how the government

¹⁶ Remmer (1991) finds, similarly, a significant positive relationship between macroeconomic crisis and incumbent replacement in 21 Latin American elections.

¹⁷ The coefficient estimate on post-crisis political instability is, by design, endogenous, and endogeneity bias is intentional. However, the endogeneity of one correlate can also bias the estimates of the others. This bias has no material effect, however. Re-estimating all of the models in Table 2, omitting post-crisis political instability, leaves the estimates nearly unchanged, however. The coefficient of electoral competitiveness remains significant, although its magnitude drops between 4 and 6 points.

addresses financial crisis. Alternative explanations for the association turn out to be consistent with this explanation.

For example, the model assumes that the shock is exogenous. However, the shock could actually be the magnitude of bank insolvency itself (the excess of the value of bank liabilities over its assets), which is related to government policy leading up to the shock. Even here, though, two exogenous elements remain: the timing of crisis and its actual magnitude. Even as government policy changes the expected magnitude of a crisis, the realization of actual crisis magnitudes and crisis timing are best viewed as random, drawn from exogenously determined distributions.

The omitted shock might not be related to financial sector policy. Instead, general economic shocks may be responsible for government instability and banking crisis. This possibility is again consistent with the logic of the model, however, since economic shocks unrelated to financial sector policy should still require incumbents to work harder to contain financial sector rents as a condition of re-election, leading them in turn to more often forego re-election and set rents at their highest level.

The final prediction from the earlier analysis is that instability prior to crisis weakens the credibility of agreements between government decision makers and special interests. When special interests cannot credibly promise to return rents to politicians that they earn from government policies approved in previous periods, politicians have little interest in pursuing those policies. Consistent with this, political instability prior to the year of crisis, *Political instability_lagged3*, as predicted, turns out to have a negative effect on fiscal transfers. These result are less significant than the others in Table 2. The coefficient estimates are significant in the second and fifth columns, but not when controlling for the current account deficit or for government spending. However, the magnitudes of the coefficient estimates

change little across specifications and are economically important. From the second specification in Table 2, a one standard deviation increase in political instability in the period leading up to crisis is associated with fiscal costs that are approximately two percentage points of GDP lower. Moreover, when one controls for the policy environment, as in Table 3 below, the estimates are uniformly significant.

Policy, politics and crisis

A variety of policies influence the effects of financial crisis and its corresponding fiscal costs. The literature, and the policy advice given to countries, emphasize the importance of the policies that countries use to respond to crisis, and their significant influence on the costs of crisis. It turns out, however, that political influence on financial sector outcomes persists even when these policies are taken into account. The evidence in this section, controlling first for government policies regarding illiquid or insolvent banks and, second, for the effects of financial sector liberalization (largely the deregulation of interest rates), suggests that political influences on fiscal transfers remain large even after controlling for key dimensions of the policy environment.

Using interviews with country experts, IMF reports and other sources, Honohan and Klingebiel (2003) constructed a database of country responses to crisis: the extent of forbearance, liquidity support to banks, and government guarantees to the holders of bank liabilities (depositors and other creditors). They find that the fiscal costs of financial crisis are all greater in the presence of these policies.

They identify three levels of forbearance, of which two are of interest here. Forbearance III is the most lenient treatment of insolvent institutions and equals one when governments relaxed or did not enforce regulations for at least a twelve month period after being informed about solvency problems in the financial sector, and zero otherwise.

Twenty-four countries (26 crisis episodes) exercised this level of forbearance. Governments exercising the level of forbearance given by Forbearance I left banks in open distress for at least a three month period. Nine crisis episodes were associated with this level of forbearance.

In 22 crisis episodes, governments offered *guarantees* and *liquidity support*. Honohan and Klingebiel code countries as having issued a blanket guarantee to bank liability holders if governments explicitly made such a guarantee. Countries were similarly coded if state-owned banks constituted more than 75 percent of total banking assets, since state-owned banks may be regarded as offering an implicit guarantee to liability-holders. They code governments as offering liquidity support to banks if bank regulators or other government offices were permitted to make transfer payments to banks encountering liquidity difficulties, independent of whether these difficulties stemmed from insolvency or not.

Using the specification in column 3 of Table 2 as the base regression, Table 3 examines the effects of the political variables when controlling for these three policies. The first two specifications employ the same sample as in column 3, Table 2. The continued importance of political forces, even after taking these three policies into account, is easily seen not only in their significance in the second column, but also in the fact that the second column has twice the explanatory power of the first, which has an identical specification but lacks the political correlates. Moreover, the estimates on political effects are notably larger than in Table 2. For example, the effect of pre-crisis political instability in reducing the fiscal costs of crisis is 40 percent larger after controlling for the policy environment.

Table 3: Financial sector policy and politics*(t-statistics in parentheses)*

Dependent variable: <i>Fiscal costs of crises/GDP</i>	(1)	(2)	(3)	(4)	(5)
<i>Constant</i>	1.76 (0.73)	-10.63 (-1.33)	.54 (.24)	-6.99 (-.93)	-4.9 (-.78)
<i>checks_33</i>		4.71 (3.23)		4.02 (2.46)	4.13 (3.05)
<i>Electoral competitiveness_33</i>		-21.40 (-3.59)		-17.48 (-3.07)	-19.23 (-3.12)
<i>political instability_lead3</i>		40.32 (4.03)		26.25 (2.40)	42.97 (4.75)
<i>political instability_lagged3</i>		-16.66 (-1.76)		-19.70 (-2.60)	-19.1 (-2.14)
<i>Current account balance (t-1)</i>		-1.42 (-2.48)		-.82 (-1.46)	-1.45 (-3.02)
<i>Forbearance III (most lenient)</i>	11.09 (3.11)	12.63 (3.65)	9.53 (3.28)	10.83 (3.44)	11.13 (3.30)
<i>Forbearance I (laissez-faire)</i>	-1.48 (-.33)	-1.18 (-.32)	-.20 (-.05)	-.15 (-.04)	-3.3 (-.86)
<i>Unlimited guarantee</i>	2.24 (0.55)	3.36 (.91)	.76 (.22)	3.03 (.95)	1.68 (.48)
<i>Liquidity support</i>	4.83 (1.09)	3.86 (.98)	8.70 (2.83)	7.48 (2.41)	3.62 (.97)
<i>Financial Liberalization (hypothetical)</i>					-4.99 (-1.66)
<i>R²</i>	.24	.66	.36	.65	.70
<i>N</i>	40	37	38	35	36

Note: See notes to Table 2. Base regression comes from Table 2, Column 3.

The second two columns follow Honohan and Klingebiel in omitting the 1980 Argentine and Egypt crises, which they identify as outliers on the basis of their large positive and negative residuals, respectively. Again, the political variables are larger and more significant than in Table 2.

The first columns of Table 3 shed new light on the offsetting effects of checks and balances: more veto players have weaker incentives to pursue rents, but stronger incentives to delay the government's reaction to crisis. However, the policy variables (forbearance, etc.) should capture the decision by veto players to collect rents. Consistent with this, the data reveal a significant *negative* correlation between the presence of checks and balances and either forbearance or liquidity support: the larger the number of veto players, the more reluctant they are to extend rents, via forbearance or liquidity support, to narrow financial interests. Given that this decision has been made, the second influence of checks on policy should be dominant. In fact, the effect of checks and balances is large, significant and *positive* in Table 3, in contrast to its insignificance in Table 2. More governmental checks and balances are associated with larger fiscal costs of crisis, after one controls for the policy environment.

Forbearance is the only policy variable that exhibits a robust influence on fiscal costs across all specifications. Forbearance is associated with greater insolvency, since it allows banks to build up bad assets at an accelerating rate as they “gamble for resurrection.”¹⁸ These actions benefits the owners and managers of high risk banks, their borrowers, and government officials who enjoy a financial interest in either the banks or the borrowers.¹⁹ However, greater insolvency does not imply larger fiscal costs (since governments can always choose not to bail out banks and their creditors). The strong results for forbearance are likely due, in part, to the fact that the same political decision may underlie the government

¹⁸ Akerlof and Romer, 1994, introduced the phrase and discuss the phenomenon.

¹⁹ Theoretically, forbearance is recommended when managers have acted prudently but have been caught up in unpredictable exogenous shocks (Dewatripont and Tirole, p. 183). In practice, though, this reasoning is not usually the justification for forbearance. On the one hand, regulators have imperfect information about the extent to which management actions have contributed to bank liquidity problems. Moreover, to the extent that regulators can differentiate illiquid from insolvent banks, there is no question that intervention is called for. On the other hand, the empirical literature suggests that non-technical, political reasoning drives the decision to

decision to replace bank management or to intervene in bank portfolio decisions and the decision to make transfers to insolvent institutions.

The second key policy area that influences crisis is financial liberalization, which has a well-documented effect of increasing the probability of financial crisis (Demirgüç-Kunt and Detragiache 2000). When ceilings on interest rates are removed, banks with a tendency to imprudence are free to bid up deposit rates to finance loans to high-risk, high-interest borrowers, laying the groundwork for crisis down the road. It is possible to examine directly, albeit quite crudely, whether political forces matter after controlling for financial liberalization.

For 23 countries covered here, Demirgüç-Kunt and Detragiache (2000) have information on whether they had liberalized their financial markets prior to crisis. Unfortunately, only two of the 23 were not liberalized at the time of crisis. If the remaining 17 were also liberalized, such that 38 of 40 countries in the sample used in this analysis were liberalized, then one could not plausibly argue that liberalization is responsible for the results here. A contrasting hypothetical case is that all 17 were *not* liberalized. Under this hypothetical case, one can observe large differences between liberalized and non-liberalized countries. Fiscal transfers in the 21 countries recorded as liberalized by Demirgüç-Kunt and Detragiache averaged 9.3 percent of GDP and exhibited a probability of forbearance averaging 52 percent. In contrast, the 19 countries either positively recorded as not liberalized (two) or for which there was no information (17), exhibited significantly higher averages on both counts: 16.7 percent of GDP, and a 79 percent probability of forbearance. This suggests that, on average, liberalized countries made *smaller* transfers and were *more* likely to intervene than hypothetically non-liberalized countries. The last column in Table 3

forbear (Kroszner and Strahan 1996). It is therefore unlikely that forbearance is driven by criteria unrelated to

reinforces the impression that financial liberalization may have had a negative, and certainly not a positive association with the fiscal costs of crisis (as distinct from the probability of crisis). As in the other columns, most political variables remain highly significant and large.

One can conclude from Table 3 that the set of formal policies normally considered important for the resolution of financial crises, and the policies that are thought to make financial crises more likely, have some effect on the fiscal costs of crisis. However, they leave considerable room for discretion to political decision makers. That discretion leads to significantly higher fiscal costs of crisis when those decision makers are not elected or when they have remained in power throughout the years preceding crisis, and when shocks occur that make it harder for them to remain in office.

Robustness

From the results in Tables 2 and 3, one can conclude that political influences on government decisions regarding crisis are significant and remain so when specifications are changed to include different sub-samples, macroeconomic controls, and financial sector policy controls. This section explores the robustness of the results reported earlier to a number of other specification issues: alternative assumptions in the construction of variable averages and on lags and leads; the role of social and demographic characteristics; and economic and financial characteristics of the economy overall.

It is natural to be concerned, as well, about endogeneity biases in the estimates in Tables 2 and 3. To address this econometrically, one would need multiple, independent instruments (one for each potentially endogenous variable, including the several political variables and the policy variables). These are not available. For example, none of the instruments for “institutions” that are frequently used in the institutions and growth

literature, such as colonial origin and latitude, are significant determinants of electoral competitiveness or other political variables. Instead, the results below address the endogeneity problem by introducing numerous variables whose omission from Tables 2 and 3 might possibly have led to spurious results. The results suggest that their omission did not have this effect. Overall, it seems highly unlikely that other omitted variables could be responsible for the results reported here. For this to be the case, they would need to be correlated with all of the political institutions and fiscal cost variables, and uncorrelated with controls ranging from the financial policies chosen by countries to their rate of growth and income level, whether they have a high level of manufacturing activity, or the fraction of the population that is rural.

Robustness to alternative assumptions on variable construction

Variable averages in Table 2 are constructed using all available data rather than only those observations for which all years of information are available. One could, alternatively, discard any observations for which any yearly values needed to construct these averages is missing. Two or three observations are lost when the political variables in Table 2 are constructed in this manner. Nevertheless, the electoral competitiveness coefficient remains significant and large except in the column 5 specification; political stability following the crisis retains its significance in all regressions except in column six, but political stability leading up to elections is more significant, with larger coefficient values, in the column two and five estimations.

Table 4: Robustness of results to alternative lags and leads
(t-statistics in parentheses)

Dependent variable: <i>Fiscal costs of crises/GDP</i>	(1) 2-year window, $xx=22$	(2) 4-year window, $xx=44$	(3) 3 year window, lags only	(4) 3 year window, leads only
<i>Constant</i>	17.57 (2.51)	12.32 (1.85)	--.46 (-.75)	14.52 (2.05)
<i>checks_xx</i>	-.78 (0.35)	1.33 (.54)		
<i>checks_lagged3</i>			.11 (.07)	
<i>checks_lead3</i>				.98 (.58)
<i>Electoral competitiveness_xx</i>	-18.00 (-1.91)	-18.46 (-2.23)		
<i>Electoral comp. _lagged3</i>			-10.02 (-1.76)	
<i>Electoral comp. _lead3</i>				-16.37 (-2.45)
<i>political instability_laggedx</i>	-6.37 (-.87)	-15.98 (-1.31)	-17.19 (-2.14)	
<i>political instability_leadx</i>	18.39 (1.63)	36.87 (2.44)		25.40 (1.79)
<i>Current account balance (t-1)</i>	-.64 (-.98)	-.90 (-1.64)	-.46 (-.75)	-.55 (-.85)
R^2	.32	.38	.19	.33
N	38	38	38	39

Note: Base regression is column 3, Table 2.

More importantly, the results in Table 2 are robust to different timing assumptions. Decisions affecting the fiscal costs of crisis are made both before the public realization of crisis (e.g., the decision to allow banks to engage in imprudent behavior) and afterwards (the decision to make transfers to insolvent banks over some period of time). The right window of time to examine is the one that just captures the period over which these decisions are

made. This is unknown. To examine the issue, columns one and two of Table 4 employ two year and four year windows instead of the three year windows in Table 2, column 3.²⁰ Results differ little among specifications using the three possible windows.²¹

Columns three and four of Table 4 examine whether there is a spurious interaction between time periods that might be driving the results reported earlier. One might imagine that political instability prior to and subsequent to the crisis year might be highly correlated and subject to multicollinearity. They are not correlated, as it turns out (the correlation coefficient is -.03), and columns three and four show that their estimated effects remain significant whether or not they are jointly estimated. Electoral competitiveness matters significantly whether measured exclusively before or after the year a crisis becomes publicly known, and political instability before and after crisis are as or more significant when estimated in isolation from each other as when estimated jointly.

Robustness to social and demographic controls

Political instability, elections and checks and balances could be the product of underlying social and demographic characteristics of society that also contribute to the propensity of societies to experience financial crises and make large payments to insolvent banks. For example, the political costs of financial crisis could vary depending on whether a country is large or small in population, whether it is primarily urban or rural, by whether its population is disproportionately young or old, or whether the country is ethnically or linguistically fragmented. The foregoing results are not at all influenced, however, by

²⁰ The results are similar using other specifications, such as regression 4 of Table 2, which includes three additional macroeconomic controls.

²¹ One exception is political instability. The magnitude of the association between political instability and fiscal transfers over four years is more than twice the magnitude over two, consistent with the fact that the decisions influencing the fiscal costs of crisis are spread out over time.

controls for these country characteristics, nor are these characteristics significant determinants of the fiscal costs of financial crisis.

Estimates of the political variables, controlling for social and demographic effects, are summarized in Table 5. None of the social and demographic estimates are close to significant and are omitted. These results are notable as well for the substantially different sample sizes over which the estimates are made. The effects of the political variables that are significant in Table 2 are at least as large in column three of Table 5, where 25 percent of the sample is lost. Though insignificant in the first column, controlling for population characteristics, political instability in the period leading up to the year in which the crisis becomes publicly known has a very large impact in the estimates taking ethnic polarization into account (or among the countries for which ethnic polarization data is available), larger than in earlier regressions.

Table 5: Robustness to social and demographic characteristics
(*t*-statistics in parentheses)

Dependent variable: <i>Fiscal costs of crises/GDP</i>	(1) <i>demographic variables</i>	(2) <i>ethnic polarization, Sullivan</i>	(3) <i>ethnic polarization, Atlas</i>
<i>checks_33</i>	2.16 (.85)	1.90 (.72)	2.38 (.67)
<i>Electoral competitiveness_33</i>	-24.26 (-2.5)	-18.39 (-1.82)	-21.18 (-1.93)
<i>political instability_lead3</i>	34.54 (2.34)	43.91 (3.93)	42.96 (2.68)
<i>political instability_lagged3</i>	-8.39 (-.94)	-22.94 (-2.36)	-22.63 (-2.23)
R^2	.49	.52	.57
N	36	34	30

N.B. Base specification is column 3, Table 2. Only political results are reported. Demographic variables are total population, percent of the population that is rural, and percent that is under 16 years old. Sullivan is from Sullivan (1991), Atlas from Taylor and Jodice (1983). Both measures are transformed to better reflect ethnic polarization: the least and most fragmented countries are least vulnerable to polarization, those that are moderately fragmented (e.g., with two equally large ethnic groups) are most vulnerable. Results are insensitive to the use of the raw data.

Robustness to controls for economic structure

Variations in government response to financial crisis could emerge either because voters have different attitudes towards the financial sector or because, contrary to arguments made earlier, competing special interests determine financial sector policy and their relative influence differs across countries. Rough controls for differences across countries in the constellation of interest groups and the potential for rent-seeking through the financial sector do not, however, affect the results presented earlier.

Table 6 presents the results of a model based on Table 2, column 3, adding two commonly used controls for economic and financial structure of countries: the share of manufacturing in GDP and lending to the private sector by deposit-taking institutions as a fraction of GDP. Financial structure is not significant, but manufacturing has a significant positive effect on the fiscal costs of financial crisis. The latter is interesting in and of itself: insider or high risk lending often tends to go to manufacturing enterprises, who would be expected to protest government efforts to curtail this lending or to aggressively collect on loans made to them. The results are consistent with this. At the same time, however, all of the political variables that are significant in Table 2, column 3 remain significant in Table 6.

Table 6: Robustness to variations across countries in the economic structure of society

(*t*-statistics in parentheses)

Dependent variable: <i>Fiscal costs of crises/GDP</i>	
<i>checks_33</i>	.93 (0.76)
<i>Electoral competitiveness_33</i>	-17.59 (-2.93)
<i>political instability_lead3</i>	29.32 (2.60)
<i>political instability_lagged3</i>	-5.85 (-.79)
<i>Current account_1</i>	-1.32 (-3.36)
<i>Manufacturing value-added/GDP</i>	1.24 (3.26)
<i>Credit extended to the private sector by deposit money banks/GDP</i>	2.4 (0.54)
R ²	.72
N	33

N.B. Base specification is column 3, Table 2. Constant omitted. Economic and financial structure variables from *World Development Indicators*.

Robustness to alternative political explanations

A large literature has documented the effect of political institutions on political decision making. In the case of government policy towards insolvent banks, Rosenbluth (1989) argues that a shift away from one specific electoral institution – single non-transferable voting – contributed to more aggressive regulation of insolvent financial institutions in Japan. Incomplete information has similarly been found to have a significant effect on policy outcomes, with newspaper circulation associated with lower corruption and greater likelihood of being a recipient of targeted government benefits (Adserà, Boix and

Payne, 2003; Besley and Burgess, 2002). The impact of competitive elections and the association between political instability and the fiscal costs of financial crisis could be the product of a spurious relationship of each to political institutions or the extent of citizen information. However, neither institutional controls nor the extent to which voters are well-informed about government activities change the results reported above.

To investigate the robustness of results to institutional phenomena, two variables are taken from the *Database of Political Institutions*. A dummy variable, *majoritarian*, is constructed to equal one if electoral systems are predominantly plurality-based and district magnitudes are less than three, and otherwise zero. The *DPI* also contains a variable *system*, equal to two if the system of government is parliamentary, zero if it is presidential and one if it is semi-presidential. The use of these two variables reduces the sample size to 31, and the coefficient of variation of the political variables in the base specification falls significantly. For example, in the sample of the base regression, Table 2, column 3, the coefficient of variation (standard deviation divided by the mean) of electoral competitiveness is .60; it is .42 in the first column of Table 7. Although reduced variation in the data should, and does, drive down significance levels, the magnitudes of the estimated coefficients remain unchanged, and variables that are significant in the base regression are also significant in Table 7.

Table 7 also reveals a strong negative relationship between majoritarian electoral systems and the fiscal costs of crisis, consistent with Rosenbluth's findings for Japan. For example, one would expect electoral rules to matter most when elections are competitive. To confirm this, the model in the first column of Table 7 is re-estimated after dropping all observations for which electoral competitiveness is less than .80. This leaves twenty-two

observations. Despite the small sample, the effect of majoritarian voting rules remains large and significant.

This finding is linked to the arguments here. Countries with plurality voting systems and small district magnitudes tend to encourage candidates to seek their own constituencies and to weaken parties. This can have the effect of driving up the number of effective veto players in a government, which is predicted here to push down incentives to seek rents. Consistent with this argument, the effect of *checks* is more positive and significant than in the base regression, reflecting the fact that the electoral rule captures incentives to seek rents, leaving the *checks* variable to reflect the difficulties that multiple veto players confront in responding to crisis. The result is somewhat different from Persson, Tabellini and Trebbi (2003), who find that corruption is higher when countries use proportional representation, but lower when they use large district magnitudes (elect more legislators per voting district). They find that these effects offset each other when comparing majoritarian and proportional representation systems, whereas here, low district magnitudes and first past the post voting rules seem to jointly reduce the rents that politicians extract from the financial sector.

Although voter information, as measured by newspaper circulation, has a strong influence on policy outcomes in other contexts, the second column of Table 7 reveals no association between citizen information and the fiscal costs of financial crisis. This is not unreasonable. The distortionary effects of citizen information are predicated on the notion that the policy actions of the government and their contribution to citizen welfare are difficult for citizens to observe, but easy for politicians. The bailout of insolvent banks, in contrast, is one of the most transparent actions that governments can take, even in countries with limited newspaper circulation. At the same time, estimates of the core political variables are as significant as in Table 2, column 3.

Table 7: Political institutions, newspaper circulation and the fiscal costs of bank crises

(*t*-statistics in parentheses)

Dependent variable: <i>Fiscal costs of crises/GDP</i>	(1) <i>Electoral and government system</i>	(2) <i>Citizen information</i>
<i>checks_33</i>	3.87 (1.46)	2.12 (0.81)
<i>electoral competitiveness_33</i>	-20.17 (-1.69)	-20.28 (-2.33)
<i>political instability_lead3</i>	24.66 (1.44)	44.26 (3.86)
<i>political instability_lagged3</i>	-6.14 (-0.62)	-12.35 (-1.21)
<i>current account balance (t-1)</i>	-.87 (-1.63)	-1.17 (-1.89)
<i>majoritarian_33</i>	-10.41 (-2.81)	
<i>system_33</i>	-.79 (-0.33)	
<i>newspaper circulation</i>		-.001 (-.12)
R^2	.39	.55
N	31	34

Note: Base regression is column 3, Table 2.

Conclusions and policy implications

The findings in this paper have implications both for the academic debate on the role of special interests in policy making and crisis, and for the policy debate regarding financial sector regulation. The analysis and evidence from financial crisis underscore the role of competitive elections in limiting the influence of special interests, both in policy making generally and in the resolution of crises. Though instability is often thought to render governments less decisive and unable to deal effectively with crisis, both analysis and

evidence here point in a different direction: political instability makes it difficult for special interests and veto players to forge credible agreements with each other, constraining the adoption of pro-special interest policies. Shocks make it more difficult for voters to hold politicians accountable, however, so one observes a high association between post-crisis political instability and the fiscal costs of financial crisis.

In the case of checks and balances, the analysis introduces a new avenue of influence that offsets those identified in the literature: more veto players gain less from rent-seeking than fewer veto players, deterring them from seeking rents in the first place. The net effect of checks and balances is therefore small, since the literature emphasizes the costs of delay to which multiple veto players are more susceptible. These results are robust to numerous alternative specifications and cannot be explained away as the product of underlying country characteristics, such as their political institutions, economic structure, or social and demographic characteristics.

At the same time, though, strong evidence emerges that some of these characteristics matter significantly. Countries in which manufacturing is a larger share of GDP make significantly larger fiscal transfers in the event of financial crisis than do other countries. Countries that elect their legislators using majoritarian voting rules (plurality electoral rules with small district magnitudes) make significantly *smaller* fiscal transfers.

Finally, however, the evidence here demonstrates that political decisions that influence the fiscal costs of crisis go far beyond the policies that are most widely discussed in the context of financial crisis. All of these policies, whether financial liberalization or forbearance or government guarantees to bank creditors, jointly explain less of the cross-country variation in the fiscal costs of crisis than do the political factors identified in the analysis here.

References

- Acemoglu, Daron and James A. Robinson (2001). "Inefficient Redistribution." *American Political Science Review* 95:3, 649-61 (September).
- Akerlof, George and Paul Romer (1994). "Looting: the economic underworld of bankruptcy for profit." *Brookings Papers on Economic Activity* 2:1-73.
- Alesina, Alberto and Allan Drazen (1991). "Why are Stabilizations Delayed?" *American Economic Review*. 82 (December): 1170-88.
- Adserà, Alícia, Carlos Boix and Mark Payne (forthcoming). "Are you being served? Political accountability and governmental performance." *Journal of Law, Economics and Organization*.
- Baron, David P. (1994). "Electoral Competition with Informed and Uninformed Voters." *American Political Science Review* 88:1, 33 – 47 (March).
- Beck, Thorsten, George Clarke, Alberto Groff, Philip Keefer, and Patrick Walsh (2000). "New Tools and New Tests in Comparative Political Economy: The Database of Political Institutions." World Bank Policy Research Working Paper, no. 2283 (February).
- Beck, Thorsten, Asli Demirgüç-Kunt and Ross Levine (forthcoming). "A new database on financial development and structure." *World Bank Economic Review*.
- Besley, Tim and Robin Burgess (2002). "The Political Economy of Government Responsiveness: Theory and Evidence from India." *Quarterly Journal of Economics*, 117(4): 1415-1452.
- Besley, Timothy and Stephen Coate (1999). "Lobbying and Welfare in a Representative Democracy." Working paper (December 9).
- Calomiris, Charles and Eugene White (1994). "The Origins of Federal Deposit Insurance." In Claudia Golden and Gary Libecap, eds., *The Regulated Economy*. Chicago: University of Chicago Press.
- Caprio, Gerard and Daniela Klingebiel (1997). "Bank Insolvency: Bad Luck, Bad Policy, or Bad Banking." In Michael Bruno and Boris Pleskovic (eds.), *Annual World Bank Conference on Development Economics*. Washington: The World Bank.
- Demirgüç-Kunt, Asli and Enrica Detragiache (2000). "Does deposit insurance increase banking system stability? An empirical investigation." The World Bank, Policy Research Working Paper No. 2247.
- Dewatripont, Mathias and Jean Tirole (1994). *The Prudential Regulation of Banks*. Cambridge: MIT Press.

- Ferejohn, John (1986). "Incumbent performance and electoral control." *Public Choice* 50: 5-26.
- Frederiksson, Per G. and Jakob Svensson (2003). "Political instability, corruption and policy formation: the case of environmental policy." *Journal of Public Economics* 87, 1383-1405.
- Frieden, Jeffrey (1991). *Debt, Development and Democracy*. Princeton, New Jersey: Princeton University Press.
- Grindle, Merilee S. (2000). *Audacious Reforms: Institutional Invention and Democracy in Latin America*. Baltimore: Johns Hopkins University Press.
- Grossman, Gene and Elhanan Helpman (1996). "Electoral competition and special interest politics." *Review of Economic Studies* 63:265-86.
- Haggard, Stephan (2000). *The Political Economy of the Asian Financial Crisis*. Washington, DC: The Institute for International Economics.
- Honohan, Patrick and Daniela Klingebiel (2003). "The Fiscal Cost Implications of an Accommodating Approach to Banking Crises." *Journal of Banking and Finance* 27:8, 1539-60 (August).
- Hutchcroft, Paul D. (1998). *Booty capitalism: the politics of banking in the Philippines*. Ithaca, NY: Cornell University Press, 1998.
- Kroszner, Randall S. and Philip E. Strahan (1996). "Regulatory Incentives and the Thrift Crisis: Dividends, Mutual-to-Stock Conversions, and Financial Distress." *The Journal of Finance*, September.
- Lindgren, C., G. Garcia and M. Saal (1996). *Bank Soundness and Macroeconomic Policy*. Washington, DC: International Monetary Fund.
- Lizzeri, Alessandro and Nicola Persico (2001). "The Provision of Public Goods under Alternative Electoral Incentives." *The American Economic Review* 91:1, 225 – 239 (March).
- Montinola, Gabriela (2003). "Who Recovers First? Banking Crises Resolution in Developing Countries." *Comparative Political Studies* 36:5, 541-574.
- Persson, Torsten and Guido Tabellini (1999). "The Size and Scope of Government: Comparative Politics with Rational Politicians." *European Economic Review* 43: 4-6, 699-735 (April).
- _____ (2000). *Political Economics: Explaining Public Policy*. Cambridge, MA: The MIT Press.
- _____ and Francesco Trebbi (2003). "Electoral Rules and Corruption." *Journal of the European Economic Association*. 1:4, 958-989 (June).

- Remmer, Karen L. (1990). "Democracy and Economic Crisis: The Latin American Experience." *World Politics* 42: 3, 315 – 335 (April).
- (1991). "The Political Impact of Economic Crisis in Latin America in the 1980s." *American Political Science Review* 85: 3, 777-800 (September).
- Romer, Thomas and Barry Weingast (1991). "The Political Foundations of the Thrift Debacle." In Alberto Alesina and Geoffrey Carliner, eds., *Politics and Economics in the Eighties*. Chicago: University of Chicago Press.
- Rosenbluth, Frances McCall (1989). *Financial Politics in Contemporary Japan*. Ithaca: Cornell University Press.
- Segal, Jeffrey A., Charles M. Cameron and Albert D. Cover (1992). "A spatial model of roll call voting: senators, constituents, presidents, and interest groups in Supreme Court Confirmations." *American Journal of Political Science* 36: 1 (February): 96-121.
- Sullivan, Michael J. (1991). *Measuring Global Values*. New York: Greenwood.
- Taylor, Charles and David Jodice (1983). *World Handbook of Political and Social Indicators*, 3rd ed. New Haven: Yale University Press.
- Tsebelis, George (1999). "Veto players and law production in parliamentary democracies: an empirical analysis." *American Political Science Review* 93:3 (September): 591-608.